

**Policy for development of Small Hydro Power Projects (SHPs) / co-located hydro-solar hybrid projects through private sector participation on Build, Operate, and Transfer (BOT) basis.**

**GOVERNMENT OF MAHARASHTRA**

**Water Resources Department**

**Government Resolution No. HEP 2022/CR125.2022/HP**

Mantralaya, Mumbai 400032

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**1) Preamble:**

Power is a critical infrastructure on which the socio-economic development of the country depends. The growth of the economy and its global competitiveness hinges on the availability of reliable and quality power at competitive rates. Therefore, it is imperative that electricity is made available at globally competitive cost.

Further, hydroelectric Power generation has many well recognised advantages. It is environmentally clean and renewable energy source with high degree of operational flexibility and reliability. The importance of the hydropower has further increased with the increased penetration of Wind and Solar power in the energy basket. Having recognised distinct advantages of the hydropower, Government of Maharashtra (GoM) has laid maximum emphasis on the full development of its available hydro potential.

Electricity Act 2003 (EA, 2003) has come into force since 10.06.2003. It has delicensed the generation and permitted direct commercial relationship between Developer and Consumer/Trader. EA, 2003 has awarded Developers a right to Open Access to State Transmission Utilities (STUs) for the purpose of wheeling/transmission electricity. After the enactment of EA, 2003, Government of Maharashtra, Water Resources Department (GoMWRD) announced its policy for development of Small Hydro Projects (SHPs) through Public Private

Partnership (PPP) on September 15, 2005 (Previous Policy). Under this policy, 40 projects, with total installed capacity of 160.45 MW have been completed and 8 projects with capacity of 9.30 MW are in progress till date. Private investment to the tune of Rs. 1000 crores have been pumped in the SHP sector. Further, these projects are generating revenue, on perpetual basis, in the form of water royalty charges and land lease charges.

Having recognised the inherent strengths of private sector such as easy access to the state-of-art technology, better managerial skill and comparatively faster decision making which can benefit for timely completion of the projects, GoMWRD has decided to continue to develop SHPs through PPP.

However, considering the experience gathered and feedback received from stakeholders, experts in the field, in last 16 years and various legislative as well as regulatory reforms, the proposal of reviewing the earlier policy was under the consideration of GoMWRD. Accordingly, the committee of experts was constituted in formulating a comprehensive draft of the policy document, for development of SHPs through PPP. The committee has submitted a comprehensive draft policy document to the State Government. On this background GoMWRD is pleased to declare this policy for development of Small Hydro Project (SHPs) / co-located hydro solar hybrid policy in the state through PPP on Build, Operate & Transfer (BOT) basis.

## **2) Relevant Legal Provisions:**

a) Government of Maharashtra, through various enactments has constituted five Irrigation Development Corporations (IDC) in the State viz.

- Maharashtra Krishna Valley Development Corporation; (MAHARASHTRA ACT No. XV of 1996).
- Vidarbha Irrigation Development Corporation; (MAHARASHTRA ACT No. XXVI of 1997).
- Godavari Marathwada Irrigation Development Corporation; (MAHARASHTRA ACT No. XXIII of 1998).
- Tapi Irrigation Development Corporation; (MAHARASHTRA ACT No. IV of 1998).
- Konkan Irrigation Development Corporation; (MAHARASHTRA ACT No. III of 1998).

As per the provisions in Section 15 of the respective IDC Acts, all the projects and assets including hydroelectric projects, situated in the area of jurisdiction of these IDCs, earlier vested with the State Government have been transferred to the respective IDCs.

- b) Further, Section 18 of these IDC Acts empowers the respective IDC to plan, investigate, design, construct and manage, promote and operate schemes for the generation of hydroelectric projects. These IDCs are also empowered to invite bids/offers for the purpose of all the activities of the Corporations, promote participation of any person or body for designing and management of hydroelectric projects.

Thus, respective IDCs, by virtue of statutory provisions have right to harness the natural resources in its jurisdiction and earn revenue from it.

- c) EA, 2003 has de-licensed the generation of electricity. Section 7, of the EA, 2003 specifies that any generating company may establish, operate and maintain a generating station without obtaining a license under this Act, if it complies with the technical standards relating to connectivity with the grid referred to in Clause (b) of the Section 73 of EA, 2003.

- d) Government of India, Ministry of Power, vide Office Memorandum F. NO. 15/2/2016-H-I(Pt) dated March 8, 2019 has taken certain measures to promote hydropower sector. In tariff rationalisation measures for bringing down hydropower tariff useful project life is increased to 40 years. Subsequently, Central Electricity Regulatory Commission (CERC), in its (Terms and Conditions for Tariff Determination from RE Sources) Regulation, 2020 has increased the useful life of SHP from 35 years to 40 years.

### **3) Objectives of the Policy:**

The State Government intends to achieve following objectives through this Policy:

- a) to harness the renewable SHP potential with the help of private sector;
- b) to create suitable environment for attracting private sector investment;

- c) to promote co-located hydro-solar hybrid power plants for optimum utilisation of land; available with IDC at the site of SHPs and evacuation infrastructure;
- d) to protect interest of consumers by developing the projects at minimum possible cost;
- e) to generate reasonable revenue for IDCs for sustenance of the infrastructure created for harnessing the natural resources;
- f) to lay down the comprehensive framework for effective implementation of the policy.

#### **4) Scope:**

The provisions in this policy are applicable to all SHPs pertaining to government & semi government organisations of GoM having installed capacity less than or equal to 25 MW, harnessing the hydropower potential of the State of Maharashtra.

The developers who have developed SHPs under previous policy are also entitled to avail Co-located Hydro Solar Hybrid Project as per provisions mentioned in 'Part E' of this policy.

### **PART- A: Implementation Framework**

#### **5) Implementation of Policy:**

SHP sites in the State shall be developed through Private Private Partnership (PPP) on Build, Operate & Transfer (BOT) basis.

#### **6) Term of the Lease:**

The BOT period shall be 40 of years. The BOT period shall start from the date of Commercial Operation (COD) of the project. At the end of the BOT period the absolute ownership of the SHP along with land, switchyard & allied equipments shall automatically stand transferred to respective IDC, free of cost. However. Promoter may opt the Renovation, modernisation & uprating (RMU) of SHP under terms and conditions of GoMWRD's RMU Policy.

## **7) Selection of the Projects:**

In order to minimise administrative work, subsequent litigations, delay in execution and sub sequential cost and time overrun, before calling the bids, for storage-based SHPs, it should be ensured that:

- a) Necessary statutory clearances for building the storage are obtained;
- b) Land acquisition and R & R activities are complete and there is no constraint on building the storage in the dam;
- c) Construction of the dam and the Power Outlet / Irrigation–cum Power Outlet is complete;
- d) Land required for construction of the powerhouse is incumbrance free and in physical possession of the IDC with the latest 7/12 extract in hand;
- e) There is no planning to use the static head of the water in the dam for piped water supply for irrigation system or any other consumptive uses.

## **8) Standard Bidding Document and Model Lease Agreement:**

In order to have uniformity, amongst the various IDCs, the GoMWRD will standardise the bidding document and lease agreement. Such standard documents will be made available on the web site. However, necessary project specific changes, consistent with the provisions in the respective IDC Act and this policy may be done.

## **9) Procedure for Selection of Developer:**

The procedure for selection of developer shall be as under.

- a) GoMWRD shall host the list of sites for SHPs to be offered for development on its website which shall be updated from time to time. Chief Engineer, (Electrical), Hydro Projects, Mumbai [CE (Electrical)] on behalf of GoMWRD shall offer, the projects from this list, for development through public notification and complete the bidding process upto issuance of Letter of Permission (LoP).

- b)** Project shall be allotted to a Developer, following a transparent TWO Envelope Bidding Process. Technical and Financial capabilities of the bidders shall be assessed on the basis of “Technical Proposal” submitted in Envelope-I. “Financial Proposal” in Envelope-II, shall only be opened, if Envelope-I shows that the bid is compliant to pre-set qualifying criteria. The bidder who offers the highest Upfront Premium (UP), over and above the Threshold Premium (TP), fixed for the bidding will be declared as a successful bidder.
- c)** In most of the projects, respective IDCs have already constructed intake structure, hoisting trash rack & sluice gates. Penstock is also laid in the body of the dam. IDCs intends to recover exclusive investment made on these power components through the TP fixed for bidding. This TP shall be Rs. 50 Lakhs/MW in case of SHPs in which IDCs have already made investment on power components. In other cases, it shall be Rs. 1 Lakh/MW.
- d)** CE (Electrical) within 10 (Ten) calendar days, from the date of opening of Financial Bids, shall convey to the successful bidder in writing, regarding acceptance of bid and direct to deposit the amount of UP within 10 days from the date of letter issued in the form of Demand Draft / RTGS. The time limit for payment of UP shall not be extended in any case and if the successful bidder fails to submit it within stipulated time limit, bidder shall be disqualified. Under such circumstances, opportunity shall be given to the bidder who has offered next higher UP.
- e)** CE (Electrical), within 10 (Ten) calendar days from receipt of UP, from the Successful Bidder as per the provisions in the bidding document shall issue Letter of Permission (LoP) to the successful bidder. This LoP will empower the developer to make necessary investigations and prepare Techno-Economic Feasibility Report (TEFR).
- f)** If the developer intends to develop SHPs at site, identified by itself, it can apply to GoMWRD directly. GoMWRD shall issue LoP directly, provided the proposed project site is not already investigated by GoMWRD/IDC. Decision of the Secretary (CAD), GoMWRD in this regard shall be final.

## **10) Guidelines for Preparation of TEFR:**

After receipt of the LoP, the developer shall prepare TEFR at its own cost. The relevant data, required for the preparation of TEFR available with the respective IDC if any, shall be made available to the selected developer, free of cost. The developer shall draw its own inferences from this data.

TEFR should cover complete scope of civil, electro-mechanical & hydro-mechanical works. Primarily focus should be on essential technical details which have substantial bearing on the cost as well as the project feasibility. TEFR should be bankable and shall mandatorily include but not limited to following essential details :

- a) Executive Summary;
- b) Credentials of the Developer;
- c) Salient Features;
- d) Project Description;
- e) General Topography, Meteorology & Climatology;
- f) Survey & Geotechnical Investigation Details;
- g) Project Layout;
- h) Project Hydrology & Optimisation of the Installed Capacity;
- i) Realistic Hydro generation Potential of Site based on hydrological data and Working Table consistent with Certified Water Release Schedule;
- j) Selection of Turbine & Governing System;
- k) Selection of Generator;
- l) Requirement of Switchyard Equipment;
- m) Monitoring, Control Protection, Automation System, Communication System and provision for its replacement after every 15 years considering the fact that the electronic systems and the software become obsolete after every 15 years;
- n) Auxiliary System & Selection of Equipment;
- o) Power Evacuation & Inter Connection with Grid;
- p) Works Program;
- q) Detailed Cost Estimates;
- r) Project Viability, on the basis of Benefit Cost Analysis, computation of the cost of generation and likely levelized tariff, as per the prevailing Tariff Regulations, notified by the Maharashtra Electricity Regulatory Commission (MERC) and in computation format used by the Commission, for Tariff Order; Financial viability of the project can be decided by comparing levelized cost of generation with average power purchase cost of MSEDCL for the previous year.

Detailed cost estimates should be on the basis of Project Cost Estimation guidelines, issued by Alternate Hydro Energy Centre, Indian Institute of Technology Roorkee, duly considering the aspect of PPP. The cost estimates shall be realistic to the extent possible and should be based on current market rates / budgetary offers of the supplying agencies. Capital cost shall cover the costs of all civil, electro-mechanical and hydro-mechanical works, cost of pre-development charges, financial charges, interest during construction, all applicable taxes, expenses towards foreign exchange component if any, freights, insurance, erection, testing and commissioning, project management charges, contingencies, overheads etc. It should also account for mandatory payments to be made to the WRD including all applicable taxes.

#### **11) Submission of TEFR:**

- a) If the developer is satisfied about the techno-economic viability of the project, it shall submit the TEFR to the Superintending Engineer, Koyna Design Circle, Pune (SE KDC) within 3 (Three) months from the date of LoP along with the processing fees as indicated in the table below :

<b>Sr. No.</b>	<b>Installed Capacity</b>	<b>Processing Fees (Rs. Lacs).</b>
1.	Up to 1 MW	1
2.	More than 1 MW up to 3 MW	2
3.	More than 3 MW up to 10 MW	5
4.	More than 10 MW up to 25 MW	10

- b) Under any circumstances (whether the project is viable or not), the developer is not entitled for any claim, for reimbursement of expenditure that it has made on investigations, preparation of TEFR and processing fee.

#### **12) Scrutiny of TEFR:**

SE KDC before concurring with TEFR shall ensure that:

- a) Proposed scheme will not prejudice the prospect for best ultimate development of the hydro potential of the site, consistent with the requirements of the domestic/irrigation/industrial water, navigation, flood control or other public purposes;



b) Proposed scheme exploits the full potential of the site allotted to the developer. In normal situation, development in stages will not be allowed. However, due to any project specific reasons, if stage wise development of the project is necessary, same shall be allowed;

c) Proposed scheme meets the norms regarding dam design & safety.

If the TEFr satisfies all the prerequisites, mentioned in Sub-Clause (a) to (c) above, SE KDC with prior approval of the Executive Director of concerned IDC, shall approve the TEFr.

Provided further that SE KDC, with prior approval of the Executive Director of the concerned IDC may reject the TEFr in case:

- i. It is technically or financially unviable;
- ii. Developer fails to comply satisfactorily, the clarification sought;
- iii. Developer fails to submit the clarifications within stipulated time.

### **13) Issuance of Letter of Allotment (LoA):**

SEKDC with the prior approval of the Executive Director of concerned IDC shall issue Letter of Allotment (LoA), within 2 (Two) months from the date of submission of final compliance of comments raised on TEFr, if any.

LoA shall also direct the developer for the formalities to be completed, regarding depositing Performance Security (PS) and signing of the Hydro Power Development Agreement (HPDA). The PS shall be Rs. 10 Lacs per MW of installed capacity. Time limit for submission of PS shall be 10 (Ten) calendar days from the receipt of the LoA.

### **14) Signing of the Hydropower Development Agreement (HPDA):**

- a) On receipt of LoA, developer shall deposit the Performance Security (PS) with an authority indicated in the LoA within 15 days from the date of receipt of LoA.
- b) The developer shall execute the HPDA with CE (Civil) of concerned IDC on the Non-Judicial Stamp Paper of requisite value within 30 (thirty) days from the date

of issue of LoA. HPDA shall be registered within next 10 days. The cost of stamp duty and registration shall be borne by the developer.

- c) PS is refundable after successful completion of period mentioned in HPDA. However TP & UP are not refundable.

**15) Clearances, Financial Closure & Payment of TP:**

- a) Project specific requirements of the clearances to be obtained by the developer shall invariably be mentioned in the bidding document and also in the HPDA.
- b) Developer, within 6 (six) months from the date of signing of HPDA shall submit to Executive Director of concerned IDC, the copies of necessary Statutory Clearances, Financial Closure and make the payment of TP.
- c) Nodal Officers shall facilitate developer in getting Clearances. However it shall be the primary responsibility of the developer to arrange for various Statutory Clearances within stipulated time.
- d) The time limit stipulated for arranging the Statutory Clearances may be extended by Executive Director of concerned IDC, if such Clearances are awaited from the Government Authorities in spite of best possible efforts from the Developer.
- e) Failure of the developer, in arranging the various Statutory Clearances, Financial Closure and payment of TP, within a stipulated period will automatically result into cancellation of HPDA and forfeiture of PS & UP.

Provided further that in case, any of the State level or Central level clearance is denied for reason(s), beyond the control of the developer, the PS as well as TP and UP if already paid by the developer shall be refunded. However cost incurred by the developer for investigations, preparing TEF, processing fee, getting clearances, arranging finance and registration of the HPDA shall not be refunded in any case.

**Handing Over of the Site & Issuance of LoAs :**

Executive Director of concerned IDC, within 8 (Eight) calendar days from the date of completing the formalities mentioned in Clause 15 (b) above, shall handover site which is incumbrance free and in physical possession of the IDC to the

developer on 'AS IS WHERE IS BASIS' and issue the Letter of Authorization (LoAs) to commence the work.

#### **16) Surrender of LoA and Consequential Provisions:**

In case of surrender of allotment by developer due to any reason it will be penalized as under and no compensation would be payable to the developer in such instance.

<b>Sr. No.</b>	<b>Stage at which Project is Surrendered</b>	<b>Penalty</b>
1.	Before signing HPDA	Forfeiture of EMD & UP, except in the event, the project is declared unviable by SE KDC.
2.	After signing HPDA	Forfeiture of UP & PS except when any State/Central level clearances are denied.
3.	After issue of LoAs to commence the work	Forfeiture of PS, TP and UP.

#### **17) Time Limit for Project Commissioning:**

The time limit to be prescribed in the bid document for commissioning the Project shall normally be 24 months from the date of handing over the site. However Executive Director of concerned IDC, may change this time limit considering any project specific issues.

#### **18) Land Required for the Project:**

The land under the possession of the IDC will be handed over to the developer on lease basis. If no land is available with IDC or the land made available by IDC is not adequate for setting the project, the developer shall purchase the required land at its own cost from the respective landlords.

### **19) Work Progress Review & Liquidated Damages for Delay:**

During the project implementation, the progress of the work shall be reviewed at various milestones & if the progress is not found satisfactory, reasons for the delay shall be called for. If the reasons for the delay are found to be beyond the control of the developer, necessary time extension shall be given without any cost implications, otherwise developer would be liable to pay liquidated damages. The details regarding various milestones and rate of liquidated damages shall be included in the HPDA. CE (Civil) in consultation with CE (Electrical) will be the competent authority for granting such extensions or imposing Liquidated Damages.

### **20) Miscellaneous Provisions:**

- a) The developer shall be responsible for carrying out the work with due diligence with regard to his responsibilities under various Central / State / Local laws, Rules and Regulations & ensure the compliance of the same.
- b) The developer shall insure the assets of the project and keep them insured during the term of HPDA.

### **21) Consultancy Services:**

In case, the developer opts to utilise the consultancy services of GoMWRD in respect of investigations, preparation of TEF, estimates, designs & drafting specifications etc. it can avail the same at mutually agreed rates & conditions. GoMWRD, has ISO 9001-2015 recognized design organization under SE KDC which has expertise in this field.

## **Part- B: Water Availability for Generation**

### **22) Water Availability for Generation:**

- a) In case of SHPs, developed on irrigation projects, the hydropower generation is incidental to irrigation/domestic/industrial water supply (consumptive uses). The water releases for such SHPs shall be strictly as per demand of the consumptive

uses and the developer shall plan the schedule for generation of energy, in accordance with such water release schedule. Further, IDC reserves the right to decide the water release schedule and modify it, from time to time, as per the requirement of the consumptive uses. Such schedule and changes therein will be communicated to the developer at least two days in advance.

- b) During monsoon, the reservoir operation will be done primarily for the flood control requirements, following the guidelines given by the Government/ IDC from time to time, approved Guide Curves, and inflow / flood forecasting etc. The developer should make use of maximum surplus water for energy generation.
- c) IDC, both during fair weather season and monsoon surplus releases, shall endeavour to release maximum volume of water from the dam in such a way that it can be utilised for generation of electricity. However, the decision of the IDC in this regard shall be final, binding and conclusive. No claim of compensation on these grounds shall be entertained.

### **23) Reduction in Generation Due to Less Availability of Water & Consequential Provisions:**

Further, after signing of the HPDA, IDC will not, as far as possible give fresh additional permissions for diversion of water from the dam without power generation. However, unforeseen events, in which actual generation is reduced below 75% of the Design Energy (DE) due to less availability of water shall be governed by the following provisions.

<b>Sr. No.</b>	<b>Reason for Less Availability of Water for Generation.</b>	<b>Consequential Provisions</b>
1	Less rainfall resulting into less inflow into the dam and consequential reduction in the water release for power generation	Developer shall not be entitled for any compensation.

Sr. No.	Reason for Less Availability of Water for Generation.	Consequential Provisions
2	Water level in the dam is restricted temporarily for repairs of the dam or from dam safety point of view and or any other reasons beyond the control of the IDC, resulting into reduction in generation by more than 25% of the Design Energy (DE).	This situation shall be treated as a “Force Majeure Event”. The Executive Director of concerned IDC shall give written intimation of occurrence of such Force Majeure Event to the developer. The term of the lease shall be extended by a period for which the “Force Majeure Event” exist. However the developer shall not be entitled for any compensation.
3	Additional diversion of water from the reservoir for domestic / industrial / lift irrigation after signing of the HPDA, without power generation resulting into reduction in generation, by more than 25% of the DE due to such diversion of water.	This event shall be treated as “IDC Event of Default” and the developer shall have the right to terminate the HPDA, following the procedure specified in the HPDA. IDC on receipt of such notice of termination shall scrutinise the reasons for less generation. If in the opinion of IDC, the reduction in generation is more than 25% of the DE and is due to additional diversion of water from the reservoir without power generation after signing of the HPDA, it shall take over the project and relieve the developer from the contractual obligations. In such circumstances, Executive Director of concerned IDC shall return the PS to the developer. Further, the developer shall be compensated with residual cost of the project as evaluated by Executive Director of concerned IDC on the basis of principles that shall be clearly mentioned in the HPDA.

### **Part- C: Generation & Sale of Energy**

#### **24) Generation:**

As per the provisions in EA, 2003, power generation is delicensed. The developer, during the term of the lease shall operate and maintain the power plant, provided the technical standards related to connectivity with the grid referred to in sub-

Section (b) of Section 73, provisions in Section 10 and all other relevant provisions in EA, 2003, regulations of Central Electricity Authority, prevailing regulations / orders of MERC are followed.

**25)Scheduling & Despatch Principles for Electricity:**

As per the provisions in the Section 33 of EA, 2003, developer shall comply with the provisions of the State Grid Code and the directions of the Maharashtra State Load Despatch Centre (MSLDC).

As per the prevailing regulations of the Commission, all RE projects are presently treated as 'Must Run' projects and shall not be subjected to 'Merit Order Despatch' principle; however provisions in the regulations of MERC, issued from time to time shall be applicable.

**26)Grid Interconnection and Evacuation Arrangements:**

Grid Interconnection and Evacuation Arrangement shall be governed by the prevailing Grid Code, Regulations, the Orders of the Commission and the relevant provisions in the Energy Purchase Agreements (EPA) to be signed by the Developer with the Distribution Licensee / Purchaser.

**27)Wheeling and Transmission:**

Applicability of Wheeling and Transmission Charges and losses shall be governed by the prevailing Regulations and Orders of MERC.

**28)Banking:**

Banking facility shall be regulated by the provisions in the prevailing Regulations / Orders of MERC.

**29)Sale of Electricity:**

The sale of electricity shall also be guided by the provisions of the prevailing RE Policy of the State. The Government of Maharashtra, in its RE Policy- 2020, dated December 31 has set the target of 380 MW to be achieved through SHPs by 2025 and has assured that it will purchase power from SHPs directly, through Energy Purchase Agreements at the rate to be decided by the Commission to achieve this

target. However, the developer will be at liberty to sell the electricity to any willing buyer.

The tariff for sale of power to distribution licensee shall be determined by the Commission. The developer, therefore will be required to approach the Commission for determination of the tariff with necessary petition under Section 62 of EA, 2003, and tariff regulations notified by MERC.

#### **Part- D: Mandatory Payments to IDC**

**30)** In addition to the payment of the TP, UP and PS, the developer will have to make the following mandatory payments to the respective IDC:

**a) Land Lease Charges:** The land lease charges for the transferred land if any, at the rate of Rs. 35 per kW of the installed capacity of the SHP per annum.

In case the developer intends to develop co-located hydro-solar hybrid project as per the provisions in Part- E of this Policy, developer shall have to pay additional lease charges, as provided in clause 33 (g) of the policy.

**b) Intake Maintenance Charges:** The developer shall pay the intake maintenance charges to the IDC at the rate of Rs. 0.10 per kWh for the net energy exclusively exported from the SHP to the grid. Provided further that if the intake structure is handed over to the developer for the maintenance, the developer need not pay any intake maintenance charges but shall maintain the intake structure at own cost.

**c)** The above rates of lease charges and intake maintenance charges are for the FY 2022-23 and the same shall be increased in every subsequent year by 5% compounding.

**d)** GST or any other tax applicable shall be borne by the developer.

**e)** Intake maintenance charges shall be invoiced quarterly at the end of each quarter and land lease charges shall be invoiced at the beginning of every financial year. All these charges will have to be settled within 30 days from the date of invoice



along with the applicable taxes thereon. Thereafter the interest at prevailing MCLR plus 2% (Two percent) per annum on delayed payment for delayed period shall be applicable.

- f) The revenue received under this policy shall be divided between State Govt. & IDCs as per prevailing policy regarding sharing of Non Irrigation revenue.

### **PART-E: Co-Located Hydro-Solar Hybrid Projects**

- 31) In case, the developer to whom SHP has been allotted under this policy or Previous Policy, opt to develop co-located hydro-solar hybrid project at the location of allotted SHP, it will be permitted to tap the solar potential of the land handed over to it, and or roof top of the project handed over to it, following the provisions in clause 33 below.

The IDC may also provide any additional land required for solar installation, if available in close vicinity of the project on lease basis. IDC after ascertaining technical feasibility on case-to-case basis may also permit the solar installation on downstream slope of the dam or on the submergence of the dam.

- 32) In case, the developer opt to develop hydro-solar hybrid project, as per the provisions in clause 32 above, following additional provisions shall also be applicable.

- a) The developer to which SHP is allotted, after site inspection may submit the TEFRR for the co-located solar project to the CE (Electrical) along with the additional land requirement, if any and the processing fees which shall be Rs. 1 Lac per MW or part thereof of solar installation.
- b) On scrutiny of such proposal and subject to availability of additional land, the proposal will be approved and the separate Letter of Permission (LoP) shall be issued by the CE (Electrical) with prior approval of the IDC.
- c) Developer shall be required to sign supplementary agreement with IDC for the Solar Project.

- d) The term of the supplementary agreement for Solar component shall be of 25 years for SHPs allotted under this policy and for SHPs under Previous Policy the Term shall be 25 years or up to the expiry of the extended term of the HPDA, whichever is earlier.
- e) Generation meter shall be provided to each source of Renewable Energy as per CEA specifications and the provisions of the regulations notified by the Commission.
- f) The provisions in the prevailing RE Policy of the State Government and prevailing regulations and orders of MERC shall be applicable.
- g) The developer will pay to the IDC, the annual additional lease charges at the following rates:
  - i) **For Land/Roof Top Installed Solar Panels:** Rs. 0.10 per kWh of net energy exported, from the solar installation, for the FY 2022-23, which shall increase in each subsequent year at the rate of 5% on compounding basis.
  - ii) **For Floating Solar Panels:** Rs. 0.05 per kWh of net energy exported, from the floating solar installation, for the FY 2022-23, which shall increase, in each subsequent year at the rate of 5% on compounding basis.
- h) Developer may use the power produced from co-located solar power plants, under this policy, for (a) captive purpose; (b) sale to third party through open access; (c) sale to any distribution licensee as per the provisions of the Regulations and Orders of the Commission.
- i) At the end of the lease period, the developer shall remove the infrastructure created for solar installation, dispose it off at its own cost and handover the land back to the IDC in a state in which it was made available to the developer for installation of the solar project. The proceeds of the disposal shall lie with the developer.

## **Part- F: General Provisions**

### **33) Nodal officers:**

Executive Engineer (Civil) and Superintending Engineer (Electrical) having the jurisdiction of project shall be the Nodal Officers for facilitating the developer in early commissioning of the project. Nodal Officer (Civil) will facilitate the activities such as handing over of the land, registration of lease agreement, obtaining necessary clearances, acquiring land for construction of evacuation line up to nearest sub-station etc. Nodal Officer (Electrical) will facilitate activities such as grid connectivity, EPA with the Distribution Licensee etc.

### **34) Capacity Building of the Officers:**

GoMWRD will organise workshops for the officers at least once in a year to sensitise its officers regarding various provisions in the policy and to update them on various technological and regulatory developments. Success stories as well as the problems encountered may also be discussed in such workshops.

### **35) Coordination & Monitoring:**

CE (Electrical), and Chief Engineer (Civil) Hydro Projects & Quality Control, on behalf of GoMWRD & Executive Director of concerned IDC will organise quarterly meetings, with the developers and all other concerned officers, to resolve the difficulties experienced by the developers, in implementation of the projects. Such meetings will also help in feedback gathering and necessary administrative actions.

**36)** GoMWRD/IDC shall endeavour to observe the time bound commitments made in this policy.

### **37) Inspection of Project:**

In addition to the statutory inspections by Factory Inspector and Electrical Inspector, the GoMWRD or the IDC, through its engineers or any authorised Panel of Experts, before and after the monsoon, every year shall inspect the SHP from safety point of view. The developer shall render all necessary cooperation for such inspection(s). The inspection reports shall be furnished to CE (Civil) of respective IDC and to CE (Electrical).

**38)** The developer shall not use the land handed over to it other than the purpose envisaged in this policy without prior permission of the IDC.

**39) Taxes and Duties:**

Developer shall pay all the taxes, duties & other levies made applicable from time to time to the respective departments of the Central, State and Local Governments unless specifically exempted. It shall be presumed that the developer has studied the relevant statutory provisions at the time of bidding and signing the HPDA.

**40) Transfer of Allotment:**

If the developer, as per the prevailing laws intends to transfer its rights in the SHP or Co-located Hydro-Solar Hybrid Project, as the case may be, it shall be permitted to do so only after prior approval of the GoMWRD. GoMWRD may give such approval provided,

- a) Financial institution has consented such transfer.
- b) Proposed developer agrees to all the terms & conditions of the HPDA and supplementary agreement of solar project, signed by the original developer.
- c) Developer shall deposit the applicable transfer fees. The transfer fees shall be of Rs. 2 (Two) Lacs/MW of installation of SHP or Hydro-Solar Hybrid Project, as the case may be in the FY 2022-23 and same shall increase in every subsequent year by 5% compounding.
- d) In case of hydro-solar hybrid project the entire ownership (Both hydro generating plant and solar installations) will have to be transferred.

**41) Powers to Resolve Difficulties:**

In the event of dispute, in respect of interpretation of any of the provisions or giving effect to any of the provisions in this policy, the decision of the Secretary (CAD), GoMWRD shall be final, conclusive and binding;

Provided that in all such matters, reasonable opportunity will be given to the affected party to be heard before the final decision.

**42) Period of Enforcement:**

This policy shall be operative from the date of publication of this Resolution and shall remain in force unless withdrawn, modified or superseded by the GoMWRD. The GoMWRD will undertake a review of this Policy as and when required.

**Part- G: Incentives**

**43)** If in any particular water year, if 75% of the design yield could not be made available to the developer for generation, then intake maintenance charges payable to the IDC for that year shall not be applicable.

**44)** As per clause A-2 of Previous Policy, at the end of BOT period of 30 years the absolute ownership of the SHP along with land, switchyard and allied equipment shall automatically stand transferred to GoMWRD free of Cost. Further it was mentioned that GoMWRD may extend the BoT period at its discretion.

The developer to whom SHP is allotted under previous policy may opt the Renovation, Modernisation & uprating of SHPs under terms & conditions of GoMWRD Policy for RMU .

**45)** If the developer commissions the project, prior to scheduled date of commissioning, it will be exempted from payment of intake maintenance charges to the extent of net energy exported to the grid till scheduled date of commissioning.

**46)** Executive Director of concerned IDC shall allow to use the approach road to the powerhouse and site if it is in possession of IDC. However, the developer shall carry out the maintenance of the approach road to the powerhouse.

**47)** GoMWRD shall provide residential quarters of suitable type, if and as available near the project site for developer for his staff during construction period on rental basis. However, the developer at his own cost shall carry out the maintenance of the same.

**48)** GoMWRD shall make available the piece(s) of land if available to the developer for construction of residential quarters/office of maintenance staff on reasonable terms to be agreed between IDC & developer. The period of such agreement shall

be the same as that of HPDA. In such case the developer shall handover such buildings to the IDC at the end of the agreement free of cost. However, the developer shall not be allowed to make any commercial use of such land.

Government of Maharashtra, Water Resources Department with approval of State Cabinet meeting dt. 04.10.2024 is pleased to declare this policy for development of Small Hydro Power Projects (SHPs) through public private participation (PPP). This resolution is issued in supersession of GoMWRD G.R. No.1204/(160/2004)/ HP, Dated 15.09.2005.

This Government Resolution is available on the official website of Government of Maharashtra, [www.maharashtra.gov.in](http://www.maharashtra.gov.in) and its computer code is 202410081454539927 This Government Resolution is digitally signed.

By order and in the name of the Governor of Maharashtra,

**(Dr. Sanjay Belsare)**  
**Secretary (CAD),**  
**WRD, Mantralaya, Mumbai.**

**Encl.: Appendix I**

**Copy to :**

1. The Principal Secretary to Hon. Governor, Maharashtra State, Mantralaya, Mumbai
2. The Principal Secretary to Hon. Chief Minister, Maharashtra State, Mantralaya, Mumbai
3. The Principal Secretary to Hon. Dy. Chief Minister (Water Resources & CAD), Maharashtra State, Mantralaya, Mumbai
4. The Principal Secretary to Hon. Dy. Chief Minister (Planning & Finance), Maharashtra State, Mantralaya, Mumbai
5. The Leader of Opposition, (Legislative Assembly/ Council), Maharashtra State, Vidhan Bhavan, Mumbai
6. All members of Legislative Assembly & Council, Maharashtra State, Vidhan Bhavan, Mumbai
7. The Principal Secretary to Hon. All Ministers, Maharashtra State, Mantralaya, Mumbai
8. The Principal Secretary to Hon. All State Ministers, Maharashtra State, Mantralaya, Mumbai
9. The Chief Secretary, Maharashtra State, Mantralaya, Mumbai

10. The Additional Chief Secretary (Finance), Finance Department, Mantralaya, Mumbai.
11. The Additional Chief Secretary, Water Resources Department, Mantralaya, Mumbai.
12. The Principal Secretary (Planning), Planning Department, Mantralaya, Mumbai
13. The Principal Secretary (Energy), I.E.& L.Department, Mantralaya, Mumbai.
14. The Principal Secretary (Industries), I.E.& L.Department, Mantralaya, Mumbai.
15. The Principal Secretary (RLA), Law & Judiciary Department, Mantralaya, Mumbai
16. The Secretary (CAD), Water Resources Department, Mantralaya, Mumbai.
17. The Secretary (PC), Water Resources Department, Mantralaya, Mumbai.
18. The Chairman, Maharashtra Electricity Regulatory Commission, Mumbai
19. The Managing Director, MSEB Holding Company Ltd. , Prakashghad, Mumbai
20. The Managing Director, MSTCL, Prakashghad, Bandra, Mumbai.
21. The Managing Director, MSEDCL Prakashghad, Mumbai .
22. The Managing Director, MSPGCL, Prakashghad, Mumbai
23. Executive Directors and Chief Engineers of all Irrigation Development Corporations
24. All CE & Joint Secretaries, Water Resources Department, Mantralaya, Mumbai
25. Chief Engineer (Electrical), Hydro Projects, Mumbai
26. All Regional Chief Engineers /Superintending Engineers of Water Resources Department.
27. Directorate General of Information & Public Relations, Maharashtra State, Mantralaya, Mumbai (2 copies)
28. HP Desk (for collection).

## Appendix I

Sr. No	Abbreviation	Full form of Abbreviation
1.	BOT	Built, Operate & Transfer
2.	CEA	Central Electricity Authority
3.	CE (E)	Chief Engineer (Electrical), Hydro Projects, Mumbai
4.	CERC	Central Electricity Regulatory Commission
5.	COD	Commercial Operation Date
6.	DE	Design Energy
7.	EA 2003	Electricity Act 2003
8.	EPA	Energy Purchase Agreement
9.	ED	Executive Director of concerned IDC,
10.	FY	Financial Year
11.	GoI	Government of India
12.	GoM	Government of Maharashtra
13.	GoMDoE	Government of Maharashtra, Department of Energy
14.	GoMWRD	Government of Maharashtra, Water Resources Department
15.	HPDA	Hydro Power Development Agreement
16.	IDC	Irrigation Development Corporation of Maharashtra
17.	SE KDC	Superintending Engineer, Koyna Design Circle
18.	LoA	Letter of Allotment.
19.	LoAs	Letter of Authorization.
20.	LoP	Letter of Permission.
21.	MAHAGENCo	Maharashtra State Power Generating Company
22.	MCLR	Marginal Cost of funds based Lending Rate



<b>Sr. No</b>	<b>Abbreviation</b>	<b>Full form of Abbreviation</b>
23.	MERC	Maharashtra Electricity Regulatory Commission
24.	MSEDCL	Maharashtra State Electricity Distribution Co. Ltd.
25.	MSLDC	Maharashtra State Load Dispatch Centre
26.	PPP	Public Private Partnership
27.	PS	Performance Security
28.	RMU	Renovation Modernisation and Uprating
29.	R & R	Relief & Rehabilitation
30.	SHPs	Small Hydro Projects
31.	SPV	Special Purpose Vehicle
32.	STUs	State Transmission Utilities
33.	TEFR	Techno Economic Feasibility Report
34.	TP	Threshold Premium
35.	UP	Upfront Premium